ENCLOSURE A

United States Environmental Protection Agency (EPA) Region 4

Air Enforcement Branch

Final Inspection Report

I. GENERAL INFORMATION

Facility Name: Drummond Company – ABC Coke

Location (Address): 900 Huntsville Avenue
Tarrant, AL 35217

Inspection Date: July 30, 2021

Type of Inspection (Full or Partial Compliance Evaluation): Partial Compliance Evaluation

ICIS-Air Number: ALJEF0000107300001

EPA Investigator(s)/Inspector(s):

Steve Rieck
EPA Region 4
Environmental Scientist

Richard Helmich
EPA National Enforcement Investigations Center (NEIC)
Chemist

Jake Carpenter
EPA Region 4
Environmental Engineer

State/Local Investigator(s)/Inspector(s):

Jason Howanitz,
Jefferson County Department of Health (JCDH)
Senior Air Pollution Control Engineer

Person(s) Contacted at Facility (Name and Title):

Jay Cornelius
Plant Manager

Report Prepared by: Steve Rieck

II. FACILITY INFORMATION

A. Facility and Permit Information

Facility and Permit Information	Comments
1. Type of facility (e.g., chemical plant, refinery, cement manufacturer, etc.).	Metallurgical Coke Manufacturing and Chemical By-Products Facility
2. Air permit number(s) and type of permit (e.g., Title V, PSD, Synthetic Minor, etc.).	Title V permit #4-07-0001-05
3. Air permit issuance date.	Amendment to permit issued April 21, 2021
4. Air permit expiration date.	April 16, 2024
5. Facility classification (Major, Synthetic Minor/Conditional Major, Minor).	Major
6. Major source pollutants (if applicable).	HAPs
7. Applicable regulations (e.g., State Implementation Plan, MACT Subpart FFFF, NSPS Subpart EEEE, etc.).	40 C.F.R. Part 61, Subpart L 40 C.F.R. Part 61, Subpart V 40 C.F.R. Part 61, Subpart FF 40 C.F.R. Part 63, Subpart L 40 C.F.R. Part 63, Subpart CCCCC
8. Types of air emission points (e.g., tanks, process vents, boilers, etc.).	Coke oven batteries, chemical by-product plant, and associated equipment.
9. Types of air pollution control equipment (e.g., baghouse, scrubber, afterburner, etc.).	Flare and water treatment

B. Process Description (provide narrative or attach description provided by the company or excerpts from the permit)

Coke Batteries:

Coal is transported to the facility by railcar or truck and then loaded into silos. The coal is blended and then conveyed by belts onto the top of the battery where it is then placed in the charge car. After an oven is pushed the charge car distributes the coal into the oven, where it is

coked. When the coke is finished coking it is pushed into a quench car. A cantilever hood is placed over the quench car for approximately 1 to 1.5 minutes in order to collect pushing emissions. The quench car is then transported to the quench tower. The quench tower sprays water onto the hot coke, cooling it. The finished coke product is then screened for the different sizes of product. After the coke is screened it is loaded into trucks or rail car for sale.

Chemical By-Products plant:

During coking, Coke Oven Gas (COG) is produced by each oven. This gas is used to heat the battery, sent to the boilers, or sent to the flare. As coking occurs raw coke oven gas exits the ovens at a temperature of approximately 1400 – 1600F. It is routed to the Primary Coolers and sprayed with flushing liquor to cool it to 37 C. The COG is sent to the Exhauster where the gas is cooled and cleaned. Tar precipitators are run in parallel to remove acid mist. In the ammonia absorber the gas stream is sprayed with H_2SO_4. This process creates ammonium sulfate in the form of crystallized powder, which is later stored and sold as fertilizer. In the Tar Bottom Final Cooler the COG travels through tar, which removes the naphthalene from the COG. After the Final Cooler, the COG is sent to the wash oil scrubber, where the light oil is removed. The light oil is further processed by removing water. The light oil is sold and removed by truck from the facility. Finally, the clean COG is distributed to be used in the batteries, boilers, or directly to the flare.

III. INSPECTION ACTIVITIES

Activity	Yes No NA	Comment
Opening Meeting	Yes	
1. Date and time entered the facility.		July 30, 2021, at approximately 8:30 am
2. Credentials presented to facility personnel (include name and title).	Yes	All inspectors presented their credentials.
3. Conducted an opening meeting to explain the purpose and objectives of the inspection.	Yes	EPA inspectors arrived on site and discussed inspection objectives with facility staff. The purpose of the inspection was to obtain ambient emission data through use of the Geospatial Measurement of Air Pollution (GMAP) mobile monitoring unit. The GMAP is a mobile air monitoring vehicle with analyzers for methane, benzene, toluene, ethylbenzene, xylene, and other VOCs. The GMAP allows for real-time monitoring and mapping of pollutants while the vehicle transverses the facility.

4. Discussed safety issues.	Yes	Inspectors discussed facility-specific safety and emergency procedures.
5. Discussed which records to be reviewed.	N/A	EPA inspectors did not review any records on-site.
6. Discussed the facility walk-through and the areas to be observed in the facility.	Yes	The inspection team will operate the GMAP vehicle to measure ambient levels of various pollutants. The vehicle will traverse facility roads around the coke batteries and chemical by-products plant.
7. Discussed facility policy regarding photographs or video (if applicable).	Yes	Inspectors indicated that videos may be taken with the OGI camera and that copies of the video would be sent to the company.
8. Discussed the use of the infrared camera, TVA, PID, and any other equipment.	Yes	Inspectors discussed use of the OGI camera and the GMAP vehicle.
9. Discussed CBI.	Yes	Inspectors discussed that copies of videos or pictures taken with the OGI camera will be provided to the facility to determine whether they contain CBI.
Records Reviewed at the Facility		
10. The types of records reviewed and the time period reviewed.	No	Records were not reviewed at the facility.
Facility Walk-Through Observations		
11. The process equipment observed and the associated operational rate observed (e.g., Furnace 1 production rate was 5 lbs/hr on 1/1/15, at 2:00 pm – permit requires max rate at 6 lbs/hr). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.	Yes	The inspection team used the GMAP to take ambient air measurements throughout the facility. The team first traversed the fence-line of the facility where access roads permitted. The team then drove through the chemical by-products plant and close to the coke batteries. While near the coke batteries, an air sample was collected in a canister for further analysis. The Region 4 inspector operated the OGI camera, however did not take any videos or photographs during the inspection.

12. The type of process parametric monitoring observed and the associated value observed (e.g., Furnace 1 flux injection rate was 200 lbs/batch at 1/1/15, at 2:00 pm – permit requires max rate at 225 lbs/batch). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.	N/A	
13. If process equipment or parametric monitoring equipment was not operating, state the reason by facility personnel why the equipment was not operating.	N/A	
14. The type of air pollution control equipment, the process equipment it is controlling, and the associated parametric monitoring value observed (e.g., baghouse pressure drop, temperature, scrubber flow rate, etc.). (For example - RTO 1 controlling furnace 1, 1,500 degrees F on 1/1/15, at 2:00 pm – permit requires 1,400 degree F or higher). Provide the date and time the information was recorded by the inspector.	N/A	The inspection team did not evaluate air pollution control equipment during this inspection.

Identify the permit limit (if applicable). An attachment may be used for a large amount of information.		
15. Continuous emissions monitoring devices and values observed. (e.g., CEMS, COMs, etc.). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.	No	
16. If air pollution control equipment was not operating, state the reason by facility personnel why the equipment was not operating.	N/A	
17. Capture and collection system (enclosures and hoods) observations, if applicable (e.g., the magnitude and duration of emission escaping capture from the hood).	N/A	
18. Ductwork transferring the emissions to the air pollution control device observations, if applicable (e.g., the magnitude and duration of emission escaping from the ductwork, holes or deterioration in ductwork, no deterioration observed, etc.).	N/A	

19. Any existing unpermitted emission points, new unpermitted emission points, or non-permitted construction activities observed. (if yes, describe in the comments field).	N/A	
20. Were any visible emissions observed? (if yes, identify the location and equipment).	No	
21. Was a Method 9 reading performed? (if yes, identify the location and equipment).	No	
22. Was the cause of the visible emissions investigated and the information documented?	N/A	
23. Was a Method 22 performed for visible emissions? (if yes, identify the location and equipment).	No	
24. Identify the cause of the visible emissions as explained by facility personnel, if applicable.	N/A	
25. Was the infrared camera used? If so, attach the video log (which includes the equipment ID, and the date and time the video was recorded) and videos to this report.	Yes	An OGI camera was used on-site, however no videos or photograph were recorded.
26. Was the TVA used? If so, identify the equipment monitored and the results.	No	

Provide the date and time the information was recorded by the inspector. Include actual instrument readings for each piece of equipment monitored above the leak definition and/or where the infrared camera identified a release. An attachment may be used for a large amount of information.		
27. Was the PID used? If so, identify how the PID was used and the results. Provide the date and time the information was recorded by the inspector. An attachment may be used for a large amount of information.	No	
Closing Meeting		
28. Conducted a closing meeting.	Yes	The inspection team returned to the office to conduct a closing conference.
29. Summarize any additional information needed, if applicable?		
30. Accept a declaration of CBI, if applicable?	Yes	No OGI footage or records were taken from the facility.
31. Discussed observations.	Yes	The team provided an overview of the day's inspection and observations. The GMAP vehicle operator discussed preliminary observations of ambient pollutant data. The data will be provided to Region 4 for review and distribution to the facility, separate from this report.
32. Discussed next steps, if applicable?	Yes	Inspectors discussed sending an inspection report and the GMAP data to the facility. GMAP data will be provided separate from this report.

33. Date and time inspection concluded.		The inspection team left the facility around 11: 00 am.
Miscellaneous		
34. Include any additional observations, if applicable.		

EPA Investigator/Inspector Signature: STEPHEN RIECK Digitally signed by STEPHEN RIECK Date: 2021.10.01 15:14:56 -04'00'

EPA Supervisor Signature & Title JASON DRESSLER Digitally signed by JASON DRESSLER Date: 2021.10.01 15:48:00 -04'00'

Chief, North Air Enforcement Section